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(54) MANUFACTURE OF MIS DIODE

(57) Abstract:

PURPOSE: To obtain a MIS diode by forming an insulating organic compound having at least one of an electron acceptable or electron donative group onto a π-conjugation group high molecular layer formed through an electrolytic polymerization method.

CONSTITUTION: Au 14 on a glass plate is used as an electrode, a π-conjugation group high molecular monomer such as a copolymer of pyrrole and N-substituted pyrrole and a supporting electrolyte are dissolved into acetonitrile to manufacture a reaction solution, a section between the Au electrode 14 and a Pt electrode is conducted, and a π-conjugation group high molecular layer 12 is deposited onto the electrode 14 through electrolytic polymerization. The layer 12 is washed sufficiently by acetonitrile, and dried in N_2. Anions are added to the deposition layer 12 on a reaction, and the layer 12 is changed into a P-type. The P-type is de-doped, and cations are added and the layer 12 is converted into an N-type. A compound having an electron acceptable group such as tetracyanoquinodimethane or a compound having an electron donative group such as aniline is applied or evaporated in response to the conduction type of the layer 12, and In is selected in the P-type and Au in the N-type, and an electrode 10 is attached. According to the constitution, a stable MIS diode having high performance is acquired.